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—THE—

# Rewell-Low Mfg. Co.

MANUFACTURERS OF

# HOTEL DISH WASHING MACHINES

—FOR—

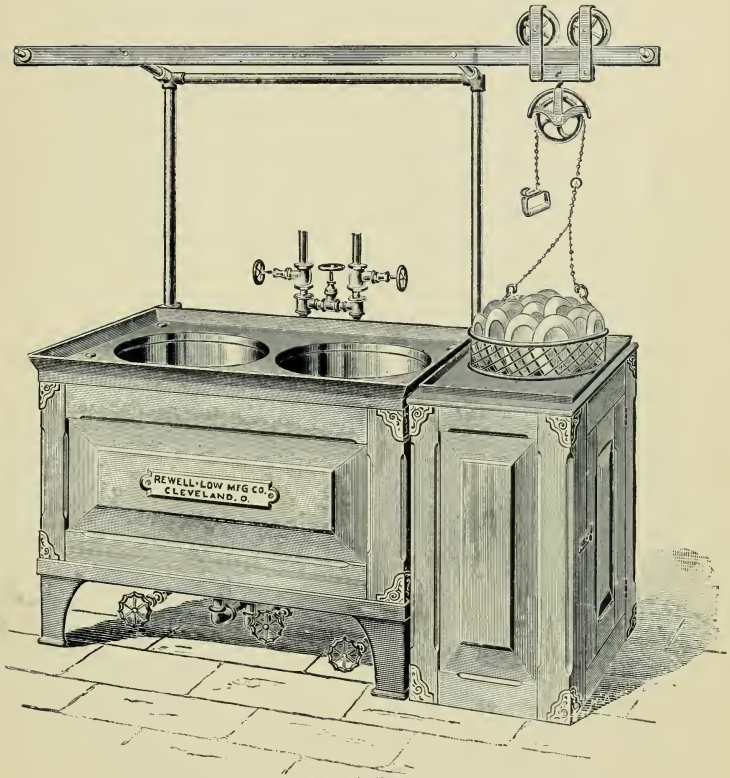
HOTELS,
RESTAURANTS,
**CLUB HOUSES,**
**INSTITUTIONS,**
**OCEAN STEAMERS,**
**ETC., ETC.**

CATALOGUE

# THE REWELL-LOW

# DISH WASHING MACHINES.

FOR HOTEL AND RESTAURANT USE.




CUT NO. 1, STYLE "S" MACHINE.
THOROUGHLY PROTECTED BY U. S. PATENTS.

OWNED, MANUFACTURED AND SOLD BY

## THE REWELL-LOW MANUFACTURING CO.

CLEVELAND, OHIO.

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# PREFACE.

TO HOTEL AND RESTAURANT

PROPRIETORS AND MANAGERS,

AND ALL INTERESTED IN

DISH WASHING MACHINES.

IN presenting this catalogue to your notice, we realize that many have preceded it and have gone on an air line to the waste basket or pigeon hole.

We hope that this one may be read carefully through. It presents facts that are of interest to you.

We are not asking you to purchase our machine; we simply submit a proposition to you for consideration,

TO SAVE YOU MONEY, TIME, LABOR AND DISHES,

AND AT NO COST TO YOU.

# INTRODUCTORY.

IN calling your attention to our superb line of machines for washing dishes in hotels and restaurants, and requesting your careful consideration of the same, we have no fear of trespassing on your time or patience, knowing that you are enterprising and progressive to the highest degree, and that all improvements that tend to effect economy or increase the efficiency of your service are eagerly welcomed by you ; hence we believe that a machine that will successfully and practically wash your dishes will be cordially received.

The subject of a machine that would do this work has engaged the time and attention of hotel men for years.

In the past there have been many attempts made to produce a machine that would do the work. Many have given the idea up as impracticable, while others have pushed forward and left it for the hotel man to prove them wholly unfit for the purpose intended. We are fully aware that the numerous failures that have hitherto attended attempts to wash dishes mechanically has in a great measure cast a cloud of prejudice over the matter. Notwithstanding this, we know that every thinking hotel man firmly believes that the advent of a practical machine that embodied all essential requirements for complete success was sure to come. It has been this series of failures that has been the means of bringing out our superb machines, and that we have a thoroughly practical machine we are prepared to prove to one and all.

It is not a theory or an experiment, but an established fact. Months of actual use under all conditions have demonstrated that we have a practical common-sense machine that can be relied on to give absolute satisfaction under all circumstances.

We have consumed upwards of three years in costly experimenting to produce it, and upwards of $25,000 to develop it, until to-day, if it is not perfection, it is so near it as to be above criticism. It is simple, hence easy to operate. Compact, requiring but little space. Above all, it is of moderate cost and within the reach of all.

## WHY OTHERS HAVE FAILED.
## WHY WE HAVE SUCCEEDED.

THE principle made use of in our machines is, in our judgment, (the result of thousands of dollars spent in experiment and investigation) the only practical method of washing dishes.

Dishes that are coated with grease, fats, eggs and other matter, can only be successfully cleaned by washing in a water that holds in solution some agent that will attack the grease and combine with it, and moreover, the temperature of the water must not exceed a certain point beyond that in which the hands can be safely and easily held, otherwise such substances as eggs, oatmeal, creamed potatoes, etc., will be firmly cooked on and adhere to the dishes. After the dishes are washed, then only can scalding water be applied to rinse and dry them.

This is your ordinary practice by hand and is the only practical one. Many machines have been produced in the past that have attempted to wash dishes by the simple forcing of clear hot water through them by hydrant pressure.

In this case, the water being used but once, great quantities are necessary. No compound can be used to soften the water or assimilate the grease, consequently it is merely distributed.

If the water is not excessively hot it has no effect whatever on the grease. If it is hot enough to accomplish the purpose, it will cook eggs, oatmeal etc. upon the dishes so hard as to make it very difficult to remove by hand.

It is this class of machines that have proved the most numerous, have as a matter of course been failures, and have created the greatest degree of prejudice.

In producing our machines, our aim has been to follow as closely as possible the methods followed by hand, namely, to first wash in water of medium temperature, holding in solution a washing or cleaning agent, and to employ a rubbing or frictional motion to remove the food.

Owing to the diversity of forms and shapes of dishes, cups, bowls, pitchers, etc., a mechanical arrangement to use brushes was clearly and wholly impracticable.

We consequently turned our attention to producing a scouring action by the violent agitation of water, as being the most natural means of accomplishing the purpose. Our success in this direction has been complete, leaving nothing to be desired.

## DESCRIPTION OF MACHINES, AND METHOD OF WASHING.

ATTENTION is directed to Cuts Nos. 2 and 3. Similar letters refer to like parts in each cut. Cuts show style "S."

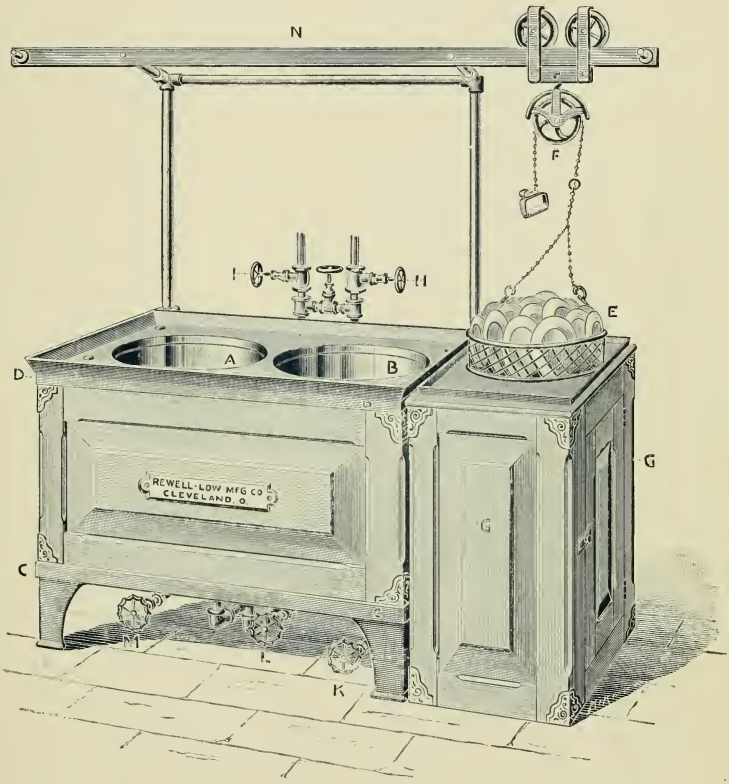
The machine with engine and drain board occupies a floor space of 5 foot 6 inches by 24 inches. It is made of steel, iron and phosphor-bronze, and is practically indestructible and will last a life-time with ordinary care.

The machine consists of two cylindrical iron tanks, 20 inches in diameter, 24 inches high, one of which A is for washing. The other, B for rinsing.

A cast iron bed plate C supports the tanks, and a similar casting D encases them on top. Our engine P (or electric motor) under drain board furnishes the power to operate the washing mechanism substantially as shown in Cut No. 3. When dishes are ready to be washed the valve H is opened, allowing cold water to flow into rinsing tank B, then starting the engine and turning the exhaust steam from it through the series of coils *a* the water is heated to the scalding point as it flows in. When the tank B is filled it overflows through the passage W into the washing cylinder A until about half full, when the valve H is closed nearly tight allowing only a very small quantity of water to pass through.

At this time add the washing compound to the water in washing tank and the machine is ready for work. The whole operation of getting ready, heating water, etc., occupies less than ten minutes. The valve I is used only in case of water in washing cylinder getting too hot, then it can be opened and a stream of cold water introduced to lower the temperature. This rarely occurs, as whilst the overflow from cylinder B is scalding hot, the introduction of baskets of cold dishes keeps the temperature at the right point.

In the washing cylinder A, a basket of dishes is shown supported by the wire netting Y, underneath which is the mechanism for agitating the water. This agitation is caused by a large gear wheel, R, about nine inches in diameter, rigidly fastened to bottom of cylinder by means of a phosphor-bronze bushing *c*, projecting down through the bed casting C and locked by nut *a'*.




CUT No. 2. STYLE "S" MACHINE.

The shaft, O, driven by the engine or motor through the bevel gears *f e* revolves in bushing *c*, carrying with it the arm which has journalled at its other extremity a shaft, having at one end the pinion S meshing in the large stationary gear, R, and at its upper end a peculiarly pitched three-arm propellor X.

The revolving of the shaft O in the center of fixed gear, R, carrying with it the arm, causes the propellor X to be revolved on its own axis five times whilst performing one revolution around the stationary gear R.

The result is to give the water a motion around the cylinder of 90 times per minute while revolving 450 times per minute in a vortex within itself.

The effect of this is to churn and force the water through the dishes, giving a scouring or frictional action that effectually removes all food of whatsoever nature.

The peculiar washing and scouring action must be seen to be appreciated. The force of the water is so equally distributed as to wash equally as well in the center as in the outside of basket. The agitation of the water forces the impurities to the surface, where they pass off with the surplus water through the overflow.

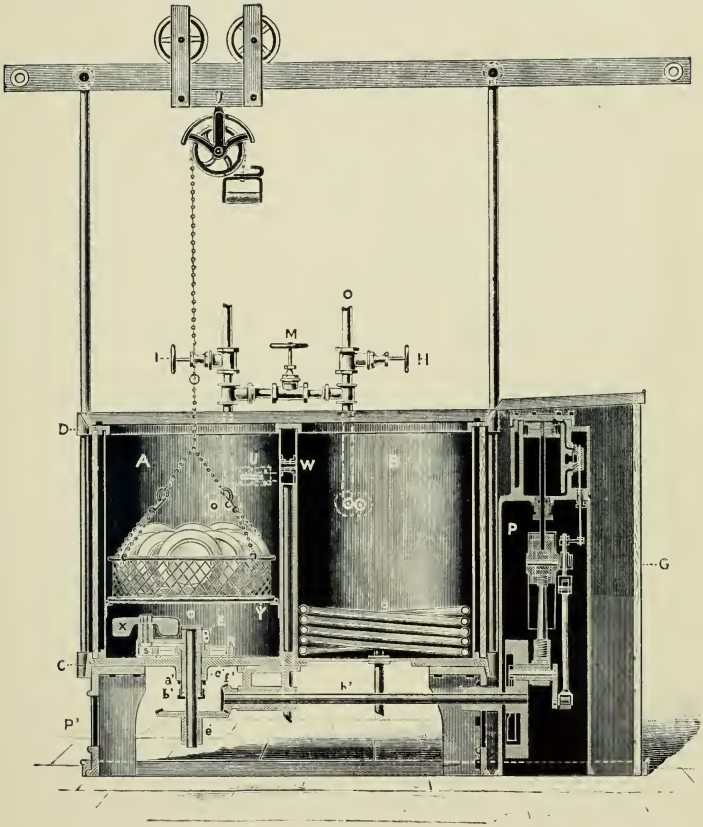
The mechanism at the bottom of washing cylinder is so protected that obstructions cannot get in and cause injury. As an additional safeguard, however, there is a safety clutch in the driving mechanism that releases the instant an excessive strain is put on the washing mechanism, permitting that to stand still, while the engine revolves freely.

Remove the obstructions and the washing mechanism again moves with the engine.

The above description applies to all sizes of our matchless machines.

As the dishes come from the dining room they are p'aced on table near by. The operator then scrapes off the refuse food and places them in baskets on edge, as shown in Cut No. 2. Plates, saucers, cups, bowls, platters, and all sorts of dishes can be placed in baskets at once. The basket, when full, is raised by means of pully, F, swung over and lowered into washing tank where it rests submerged as shown in Cut No. 3.

The dishes are thoroughly washed in a moment's time, when the basket is raised, swung over and lowered into rinsing tank.




CUT No. 3, SHOWING INTERIOR MECHANISM OF STYLE "S" MACHINE.

Ten seconds is sufficient time to thoroughly rinse them, when they are placed on drain board to dry as shown by E, Cut No. 2. From the drain board the water flows back into rinsing tank.

In the meantime another basket has been placed in washing tank and thus the operation is continuous.

## CONSTRUCTION OF WASHER.

THE workmanship and material made use of in our washer is the best. Nothing but the finest crucible steel being used for shafts, studs, etc. All parts are accurately fitted and strictly interchangeable, so that any piece can be replaced at a moment's notice. Wherever wear occurs hardened steel is used exclusively. The strength and proportion of parts is far in excess of the usual engineering practice. It is designed to be practically indestructible.

## CONSTRUCTION OF ENGINE.

THE average small engine, in our experience, is a source of infinite trouble to keep up, and as the operator of our machine need not be a mechanic, we have designed an engine that will practically care for itself. It will run for months without attention beyond the necessary oiling. It is automatic cut off, adapting itself to all variations of load. An automatic lubricator supplies oil to all its bearings. The engine is noiseless in operation ; any inexperienced person can operate it.

## CONSTRUCTION OF BASKETS.

THE shell of basket is made of iron, galvanized. This supports a wooden interior, consisting of spokes radiating from the centre, into which upright posts are dowelled having wooden rims secured to them at their upper ends. The plates, etc. stand on edge ; vegetable dishes, cups, etc. are placed in the middle. The interiors will last about a year, when they can be replaced at trifling cost.

## POWER REQUIRED.

FOR our "S" machine a half-horse power engine or electric motor gives ample reserve power. In all cases where practicable, it is advisable to use an engine from its greater economy.

The steam after doing its duty in the engine exhausts through a series of coils in rinsing tank, thus heating the water used in the machine, and as but little more steam is used than is necessary to heat the water, practically the power costs nothing, as the water heated back in the boiler would consume nearly the same amount of coal. This is an immense argument in favor of our machines.

## WATER REQUIRED.

THIS depends as a matter of course on the amount of work to be done and the condition of the dishes. In washing to its fullest capacity, our style "S" machine, shown in cuts, requires only the amount of water that can pass through a hole 1–32 of an inch in diameter, or a trifle larger than the diameter of an ordinary pin, under ordinary city pressure. In explanation of this apparently incredible statement, we will state that the mechanical agitation of the water is such as to purify itself, all foreign matter is thrown to the surface, where by its specific gravity and centrifugal force, it is carried to the outer edge, where it wastes off into the overflow with the surplus water.

## STYLES AND CAPACITY.

AT the present time we are building four styles of machines for Hotel and Restaurant use:

| SIZE. | NUMBER TANKS. | | CAPACITY. |
|---|---|---|---|
| Style "R" | 1 Washing. | 1 Rinsing. | 1,000 to 1,500 per Hour. |
| " "S" | 1 " | 1 " | 2,500 to 3,000 " " |
| " "T" | 2 " | 1 " | 5,000 to 6,000 " " |
| " "U" | 3 " | 1 " | 8,000 to 12,000 " " |

Styles "R" and "S" are exactly alike, except in size and capacity. Style "T" has two washing tanks, and style "U" three washing tanks, which gives them an immense capacity. When

it is remembered that it only takes about one-sixth the time to rinse that it does to wash, it will be seen at a glance that one rinsing tank is sufficient to rinse the dishes for three or even more washing tanks. The power required to run styles "R" and "S" is about one-half horse power, as above stated. The larger styles can be run with a one-horse power engine or motor, and have ample reserve power.

Such is a description of our matchless machines, the only perfect dish washers ever offered for sale.

The only machines doing the work in a practical common-sense manner.

## WHAT WE CLAIM FOR OUR MACHINES.

### WHY THEY ARE SUPERIOR TO ALL OTHERS.

**Occupy Less Space,**
**Require Less Water,**
**Take Less Power,**
**Do More and Better Work.**
**Save all Breaking and Chipping.**
**Impossible to Break Dishes,**
**Lighter and Nicer Dishes can be Used,**
**Machine is Always up with Work,**
**Less Dishes are Required,**
**Dishes come from Machines Hot,**
**And Ready for Immediate Use.**
**Effect a Large Saving in Help,**
**Machines Never go on a Strike,**
**Cannot Get Out of Order,**
**Will Last a Life Time with Ordinary Care,**
**Made of Phosphor-Bronze, Iron & Steel.**

### WILL WASH FROM 1,500 TO 12,000 DISHES PER HOUR.

THE ONLY PERFECT MACHINES MADE.

The closest investigation is urged, and the more these machines are examined the more highly pleased everyone becomes.

## A REMARKABLE RECORD.

# 2,000,000 DISHES WASHED

### RINSED AND DRIED IN 9 MONTHS TIME,

at the "Stillman" Hotel, Cleveland, Ohio, and in all that time

### NOT A DISH WAS BROKEN OR EVEN CHIPPED.

DOES not this speak volumes to hotel men in favor of our magnificent machine. By hand washing in sinks in the old way no doubt at least 1 per cent, or 2,000 dishes would have been smashed or chipped in such a manner as to render them unfit for use. No one will deny this. These dishes would cost nearly enough to buy a machine.

As an evidence of the absolute accuracy of our statements concerning the perfection of the work of the machine, we append an unsolicited endorsement from Mr. Henry F. Roesser, of the "Stillman" Hotel, Cleveland, Ohio, a gentleman well known throughout the United States, as a thoroughly practical hotel man.

We also send other endorsements from even larger hotels, all of which will be found on separate sheets, which speak for themselves.

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## HOW WE PLACE THESE MACHINES.

WE do not ask hotel or restaurant men to buy our machines until they are firmly convinced by actual use that they will do the work in a satisfactory manner.

It is admitted on all sides that a machine of this character is in demand. No one doubts this.

The loss in breaking and chipping of dishes is very heavy, and we believe hotel and restaurant men will adopt a perfect machine if they are convinced that such a one can be had. Our machines do the work perfectly, and as an evidence of the fact we are willing to place a machine anywhere in any hotel or restaurant in the United States under the conditions of the following form of contract :

## FORM OF CONTRACT.

Memorandum of an Agreement entered into this day by and between THE REWELL-LOW MFG. CO., a corporation of Cleveland, Ohio, and Messrs.....of.....State of..... Witnesseth:

The Rewell-Low Mfg. Co. agree on their part as follows:

To sell to Messrs.....one of their style.....Hotel size Dish Washing Machines; to pack and deliver same within.....days from date of this agreement; to furnish a competent man to superintend the erection of, and the putting in running order the said Dish Washing Machine in the kitchen of Messrs.....; to educate an employe of Messrs.....to properly run the machine. They furthermore agree that the said machine shall wash dishes as they come from the table in a thorough and practical manner, if directions given are followed. They furthermore agree that if at the expiration of 30 days trial, the machine does not do its duty as above specified, that they will take the machine out of the kitchen of Messrs....., and that they will restore their kitchen to its normal condition.

In consideration of the foregoing agreements on the part of The Rewell-Low Mfg. Co., Messrs.....of.....State..... agree on their part as follows:

To receive said machine and allow it to be placed in their kitchen in the city of.....State of.....

They furthermore agree to furnish a careful man to run the machine. They furthermore agree that such man shall place himself under the tuition of the expert sent by The Rewell-Low Mfg. Co., and that he will follow implicitly the directions given him for running the machine by said expert. They furthermore agree that the machine will be cared for in a careful manner, and that every possible opportunity will be given the machine to prove its worth. They furthermore agree that if at the expiration of 30 days the machine has during that time, done its work as agreed, that they will pay The Rewell-Low Mfg. Co. for the machine as follows:.....

.....

.....

Given under our hands and seals this.....day of.....189...

THE REWELL-LOW MFG. CO.

Per.....

SEAL

Witness.....

We ask if any fairer method of introduction could be asked. Hotel men admit that they want a machine that will do the business. That they will take and pay for such a machine when convinced by an actual test that it can be depended on to do the business. We have such a machine.

We will put it in at our own expense. If it does not do the business we will take it out at our expense.

On the contrary, if it does the work required, we naturally expect payment on general business principles. Ordinarily, talk is cheap and claims are very easily made. All we seek is an opportunity to place the machine and let it work out its own salvation.

## CONCLUSION.

OUR story is told, our offer made, and we invite at the hands of hotel men an acceptance of the same.

Prices and terms of payment will be furnished on application. We invite correspondence with all interested parties, and shall be glad to answer any and all enquiries. If in any respect you need further explanation pertaining to construction, scope or use of machines, or on any points omitted or vaguely stated, please do not hesitate to write for further information.

Our office force is practical and experienced, and with assistance of stenographers and typewriters, have ample time to take the matters of inquiry up in detail for your satisfaction.

THE REWELL-LOW MFG. CO.,
GEO. M. REWELL, Pres't,
CLEVELAND, OHIO.

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